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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/986,629	11/09/2001	Thierry Monteil	P07428US00/BAS	5942

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EXAMINER
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REYES, HECTOR M

ART UNIT	PAPER NUMBER
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1625

DATE MAILED: 05/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/986,629

**Applicant(s)**

MONTEIL ET AL.

**Examiner**

Hector M Reyes

**Art Unit**

1625

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) 3-9 and 12 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,10,11 and 13-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☐ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

**Election**

Applicant's election with traverse of Group I, claims 1,2,10, 11, 13 and 14-16 dated on March 12, 2004 is acknowledged. The traversal is on the grounds that:

- The presented amendment of claims 3 and 12 makes the said claims depend directly or indirectly of claim 1
- Claim 1 refers to the process of preparation of the compound of formula (I) from compounds (IV) and (V)
- Claims 3 and 12 further limit the scope of claim 1
- References anticipating the Claims of Group II would also anticipates the claims of Group I, since claims 3-9 and 12 are dependent upon the scope of Claim 1 and
- The intermediates of formulae (1), (V), (VI) and VIII are closely structurally related.

This is not found persuasive because:

- Regardless of the dependency between claims the subject matter embraced by the said groups of claims is what make each group a different invention from the other. Clearly, Group I is directed to the process of preparation of compound of formula (I): a thio acyl-amide-ester derivative via a Michael Reaction while group (II) is directed to the preparation of acrylamide-ester derivative (V) via a multi step synthesis. Each group's target compound is quite different in both structure and functionality.

- Contrary to what Applicants argued, the invention described in Claim 1 has not been limited at all by the said amendment since the broader claim has not been amended. Thus, limitations of the broadest conception of the invention remain the same because the main independent claim has not been amended.
- A given reference disclosing or suggesting the particular process of prepare the acrylamide as described in claims 3-9 and 12 does not need to disclose or suggest the preparation of compound (I). For instance, see acrylamide (IV) in Greenberg et al, US patents 4,401,677 and 4,474,799 which are embraced by formula (V) of the instant invention and are prepared by reacting the acid chloride of the corresponding acryl acid with the amino acid or its derivative of formula (II). On the other hand, a given reference anticipating the process claimed in claim 1 or even in Group I, does not need to include the particular preparation method of acrylamide (V) described in Group II. Thus, a given reference anticipating or suggesting Group I does not need to disclose or suggest Group II under the meaning of 35 USC 102 or 35 USC 103.

The requirement is still deemed proper and is therefore made FINAL.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

Claim 13 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant

regards as the invention. In claim 13, the phrase "chirality inducers" is indefinite because it is not clear which of the multiple chiral compounds in the art can satisfy the limitations of the claim. Moreover, since chiral inducers are used in order to achieve a stereo selective outcome, it would be very improbable that any possible chiral compound would indeed be used in order to achieve a stereo selective product. Incorporation of the inducers used is hereby suggested.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1, 2, 10, 11, 14-16 are rejected under 35 U.S.C. 103(a) as obvious over Greenberg et al, US patent 4,401667 or US patent 4,474799.

Greenberg discloses the preparation of thio carboxamide derivatives, described as formula (1), see col. 1, 677 and 799. The said derivatives obtained by reacting the thio acid of formula (VII) with the acrylamide of formula (VI) as described in col. 3, 677 and 799.

Greenberg points out that the asymmetric carbon in the amino acid portion is in the L-configuration while the asymmetric carbon in the mercapalkanoyl side chain can be in the D or L or D, L configuration.

Greenberg does not use the corresponding ester of the acrylamide (VI) and does not particularly prepared compounds outlined in claims 15 and 16. However:

- Variable R4, corresponding to variable R3 in the cited references is defined as Lower alkanoyl of 1 to 4 carbons, preferably acetyl or benzoyl
- Variable group CH<sub>2</sub>-R1 corresponding to R1 in the references is defined as straight or branched chain alkyl of 1 to 4 carbons, benzyl or phenetyl
- R2 variable group correspond to R2 in the references and is defined as straight or branched chain alkyl of 1 to 4 carbons atom, among other derivatives and
- R3, is defined as hydrogen atom see formula (IV) or an ester derivative used as an intermediate, see for example, col. 3, lines 34 and 35, '677). Notice that group R3, ester or hydrogen does not takes part in the cited reaction.

Therefore, a person skill in the art would use the method described by Greenberg et al in order to prepare the compounds described in claims 15 and 16 as a convenient method because of the said compounds are analogs of the compounds already

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prepared by Greenberg by the said method. A person skilled in the art would recognized that R3 variable group does not takes part in the aldol reaction and thus would carry out the same process with the corresponding acrylamide-ester derivatives as well as with the corresponding acid.

**Allowable subject Matter**

Claim 13 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

**CONCLUSION**

Any inquiry concerning this communication should be directed to Hector M. Reyes whose telephone number is (571) 272-0691. The examiner can normally be reached on Monday to Friday from 9 am to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner 's supervisor, Ms Rita Desai, which telephone number, is (571) 272-0584.

Héctor M. Reyes PhD, JD  
May 15, 2004  
AU 1625

*R. Desai*  
5/17/04